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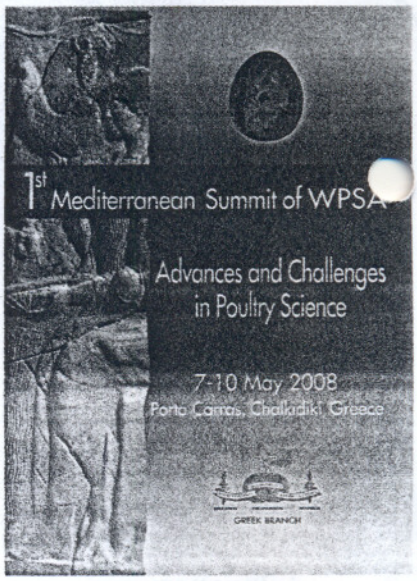

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THE EFFECT OF TWO ANTIOXIDANTS (SELENIUM & TURMERIC POWDER) ON BLOOD PARAMETERS OF BROILER CHICKENS REARED UNDER HEAT STRESS CONDITION

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Heat stress may affect feed intake, growth performance, and some blood parameters of birds. For this reason the main objective was evaluation the effect of two antioxidants (Selenium & Turmeric powder) on blood parameters of Ross*Ross broiler under heat stress condition. A completely randomized block design was used with 6 treatments using 180 day old chickens. T1= Control diet based corn and soybean meal without supplementation, T2= Control diet+ 5 g turmeric powder/kg, T3= Control diet+ 10 g turmeric powder/kg, T4= Control diet+ 0.3 mg sodium selenite/kg, T5= Control diet+ 0.3 mg sodium selenite + 5 g turmeric powder/kg and T6= Control diet+ 0.3 mg sodium selenite + 10 g turmeric powder/kg of diet. Broiler were subjected to heat stress on day 28 (35 C0) for two weeks. At 28 and 42 days, two birds of each replicate randomly selected and a blood samples taken from the wing vein. The result showed T6 had higher glutathione peroxidase (785.2 u/l) and total antioxidant capacity (1258 mmol/l) ($P<0.05$) compared the other treatments. At the end of experiment treatment 4 significantly increase the superoxide dismutase enzyme concentration (28.9u/ml) ($P><0.05$). Concluded that supplementation of broiler diets with 0.3 mg sodium selenite/kg & 10 g turmeric powder/ kg could increase their tolerance to heat stress condition.

Keywords: Broiler, Antioxidants, Heat stress, Blood parameters